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मानक

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“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

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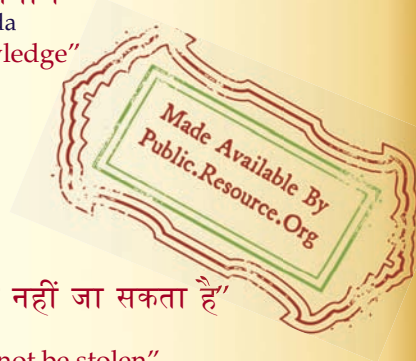
IS 6763-1 (1987): Specification and testing of fifth wheel king pin, Part 1: Size 50 [TED 22: Transport Tractors and Trailers]



“ज्ञान से एक नये भारत का निर्माण”

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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

(Reaffirmed 2002)

SPECIFICATION AND TESTING FOR
FIFTH WHEEL KING PIN FOR SEMI-TRAILERS

PART 1 SIZE 50

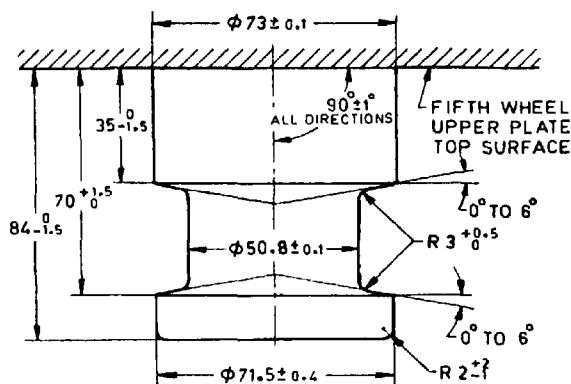
(First Revision)

1. Scope — Specifies the dimensions and testing procedure for the size 50 ($\phi 50.8$ mm) fifth wheel king pin. In addition, this standard specifies the dimensional characteristics necessary for mounting and interchangeability.

2. Terminology — For the purpose of this standard, the definitions given in IS : 7774-1975 'Glossary of terms relating to transport tractors and trailers; Part 1 Basic terms and Part 2 Dimensions and weights' shall apply.

3. Dimensions and Tolerances

3.1 The basic functional dimensions and tolerances of fifth wheel king pin shall be as given in Fig. 1.



All dimensions in millimetres.

FIG. 1 DIMENSIONS OF SIZE 50 SEMI-TRAILER FIFTH WHEEL KING PIN

3.2 The dimensional characteristics for mounting and interchangeability for fifth wheel king pin shall conform to the details given in Fig. 2.

3.3 The dimensions of gauge, details of load applications and fixture for applying load 'C' are given in Fig. 3 to 5.

4. Material

4.1 The material for fifth wheel king pin shall be such as to withstand the drawbar pull test as specified in 5.1. Some of the suitable materials are given in Appendix A for information.

5. Tests

5.0 The following tests shall be carried out on fifth wheel king pin used for trailers.

5.1 Drawbar Pull Test — The king pin and its mounting shall withstand the following loads without failure:

- Load A of 272 kN in fore and aft direction,
- A dynamic (cycling) load B of 113 kN for 500 000 cycles,
- A torque load C of 14 400 Nm for 100 000 cycles (refer to Fig. 1 for load A and B), and
- Load C is to be applied at a point in a plane 90° to that of loads A and B (see Fig 4)

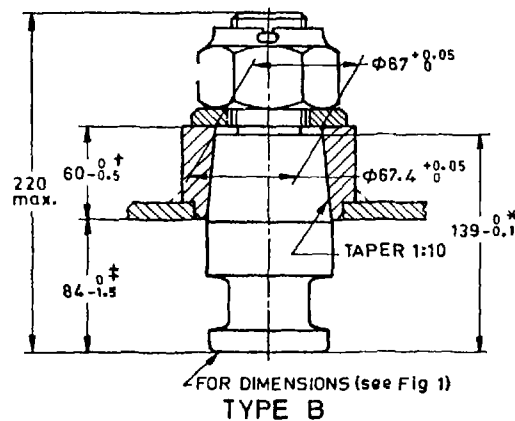
Adopted 24 February 1987

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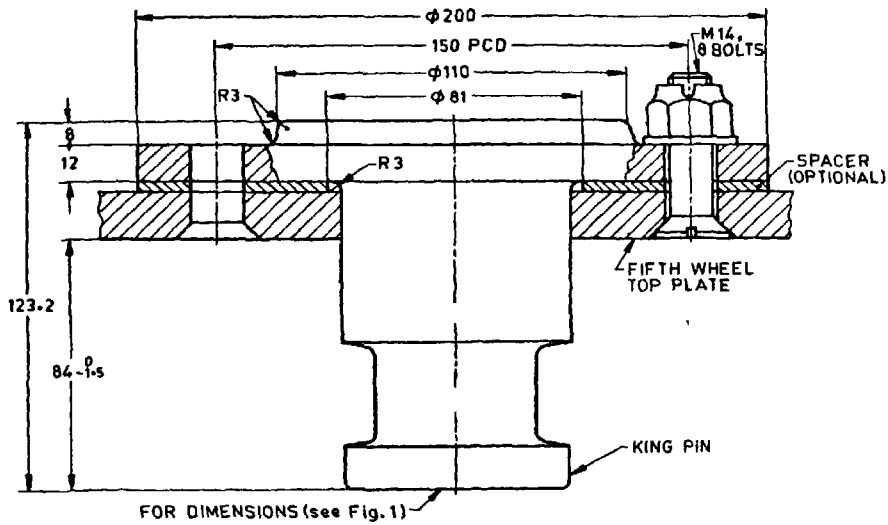
BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

5.2 Checking of King Pin — In order to check king pin assembled to the trailer rubbing plate on longitudinal and transverse centre lines, place the top of the gauge in contact with the rubbing plate and slide over the king pin. King pin shall pass through the king pin slot with the top of the gauge in contact with the rubbing plate.



All dimensions in millimetres

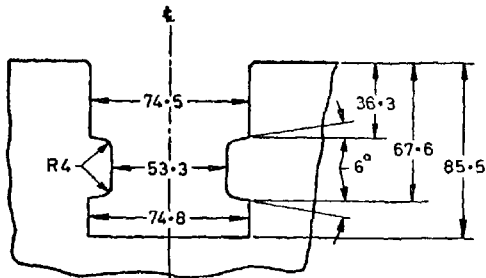
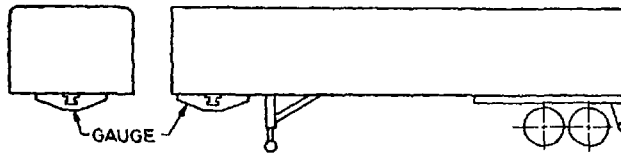
FIG 2 MOUNTING DIMENSIONS OF KING PIN TYPE A AND B — Contd.



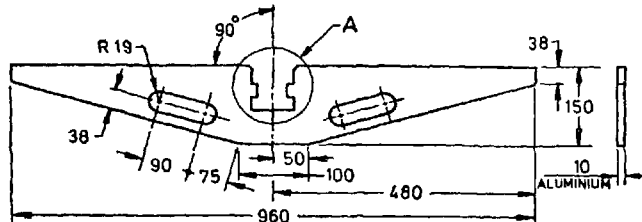
TYPE C

All dimensions in millimetres.

FIG 2 MOUNTING DIMENSIONS OF KING PIN TYPE C



DETAIL AT A



All dimensions in millimetres.

FIG 3 DIMENSIONS OF GAUGE (ALUMINIUM)

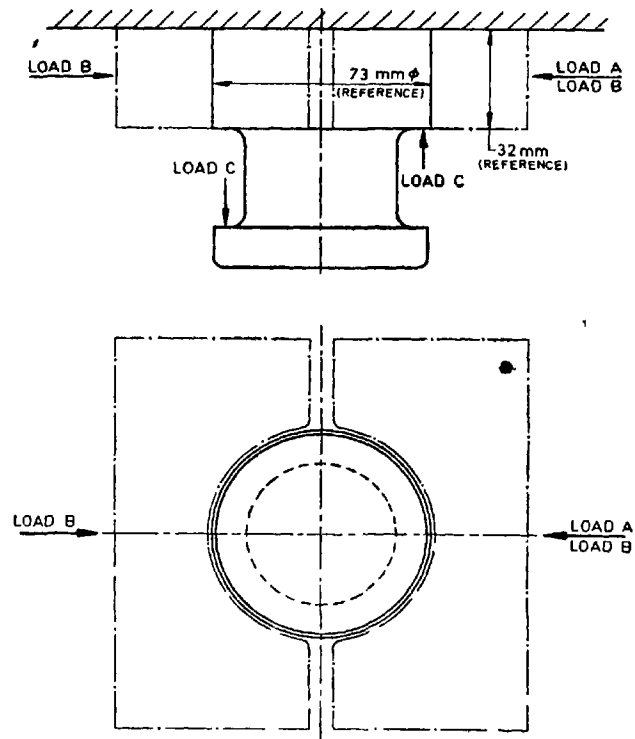


FIG. 4 DETAILS OF LOAD APPLICATION

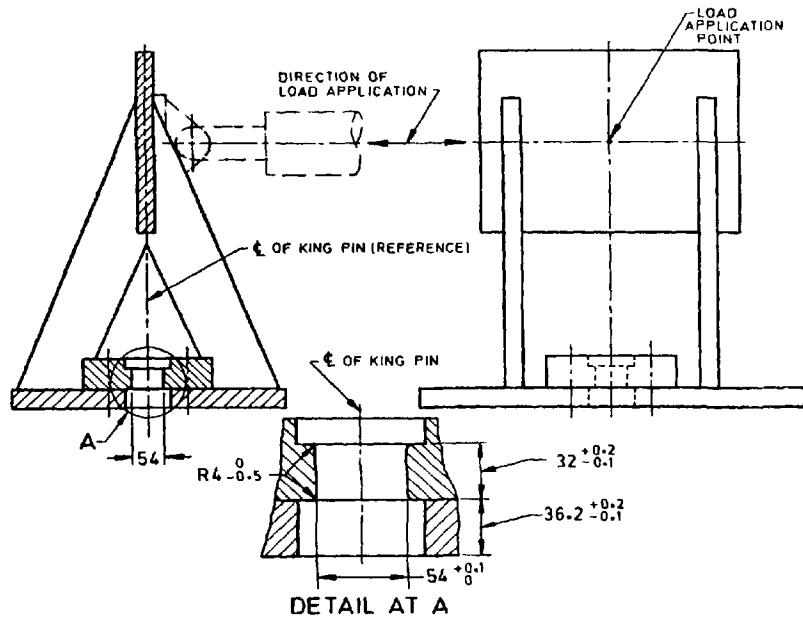


FIG. 5 FIXTURE FOR APPLYING LOAD 'C'

APPENDIX A

(Clause 4.1)

MATERIALS FOR SIZE 50 FIFTH WHEEL KING PIN

A-1. The fifth wheel king pins for semi-trailer and trailer are normally made from high tensile chromium molybdenum steels. Some of the steels suitable for this purpose are given below:

Steel Designation

Relevant Indian Standard

40Cr₄MO₃

IS : 5517-1978 'Specification for steel for hardening and tempering (first revision)'

15Cr₁₃MO₄

do

25Cr₁₃MO₄

do^a

EXPLANATORY NOTE

Fifth wheel king pin is used for coupling semi-trailer with the fifth wheel of a prime mover or a load dividing dolly attached to the prime mover.

This standard was first published in 1972. This revision includes the procedure for inspection of the king pin and the dimensional characteristics necessary for mounting and interchangeability. In this revision, the values have also been converted into SI units.

This standard is being issued in two parts:

Part 1 Size 50, and

Part 2 Size 90.

In the preparation of this standard, the assistance has been derived from ISO 337-1981 'Road vehicles 50 semi-trailer fifth wheel coupling pin — Basic and mounting/interchangeability dimensions' issued by the International Organization for Standardization (ISO).

AMENDMENT NO. 1 SEPTEMBER 2005
TO
IS 6763 (PART 1): 1987 SPECIFICATION AND TESTING
FOR FIFTH WHEEL KING PIN FOR SIMI TRAILERS
PART 1 SIZE 50
(First Revision)

(Page 1 clause 3.1, Fig 1) — Substitute $84 \begin{smallmatrix} 0 \\ -15 \end{smallmatrix}$ for $84 \begin{smallmatrix} 0 \\ -15 \end{smallmatrix}$

(Page 2 footnotes) — Substitute $103 \begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$ for $109 \begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$ for

$139 \begin{smallmatrix} 0 \\ -1 \end{smallmatrix}$ $60 \begin{smallmatrix} 0 \\ -5 \end{smallmatrix}$ for $60 \begin{smallmatrix} 0 \\ -5 \end{smallmatrix}$ and $84 \begin{smallmatrix} 0 \\ -15 \end{smallmatrix}$ for $84 \begin{smallmatrix} 0 \\ -15 \end{smallmatrix}$

(Page 5 Appendix A clause A-1) — Substitute Steel Designation 42Cr₄Mo2 or equivalent for '40Cr₄MO₃', as per IS 5517 1993

(TED 22)